FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Rogers Group, Inc. - Lawrence County Asphalt
2 ½ Miles West of SR 37 at CR 750 N
Springville, Indiana 47462

(Herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F 093-7577-03287	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 20, 1997 Expiration Date: June 20, 2002

First Significant Permit Revision: SPR 093-15141-03287	Pages affected: 3, 4, 22, 23, 24, 25 and 30; 25a is added
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 3, 2002

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SECTION A SOURCE SUMMARY

A.1 General Information [326 IAC 2-8-3(c)]
The Permittee owns and operates a stationary batch mix asphalt plant with a maximum capacity of 325 tons per hour.

Responsible Official:	John P. Torres
Source Address:	2 ½ Miles West of SR 37 at CR 750 N, Springville, Indiana
Mailing Address:	P.O. Box 25250, Nashville, Tennessee 37202-5250
SIC Code:	2951
County Location:	Lawrence
County Status:	Attainment for all criteria pollutants
Source Status:	Synthetic Minor Source, FESOP Program Minor Source, PSD Program

A.2 Emission Units and Pollution Control Summary
This stationary source consists of the following emission units and pollution control devices:

(a) One (1) pugmill with weigh hoppers and screens capable of producing 325 tons per hour of asphalt, exhausting through a baghouse (CE1) and exiting through stack S1.

(b) One (1) 91 million British thermal units per hour aggregate dryer exhausting through a baffle separator (CE2) and baghouse (CE1), exiting through stack S1, and using waste oil #4, waste oil #2, waste oil #3, No. 2 distillate oil, No. 4 distillate oil, or natural gas as fuel.

(c) One (1) jet pulse baghouse (CE1) with an air flow rate of 45,000 actual cubic feet per minute.

(d) One (1) baffle separator (CE2).

(e) Three (3) asphalt storage tanks (T1, T2 and T3) with capacities of 20,000 gallons each.

(f) One (1) waste oil storage tank (T4) with a capacity of 20,000 gallons.

A.3 Insignificant Activities
This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

(1) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(2) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(3) One 500 gallon propane tank used to provide pilot light ignition for the drum dryer.

A.4 FESOP Applicability [326 IAC 2-8-2]
This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions Superseded [326 IAC 2]
This permit supersedes the conditions of all construction and operating permits issued under 326 IAC 2 prior to the effective date of this permit.

SECTION D.1 FACILITY OPERATION CONDITIONS

One (1) 91 million British thermal units per hour aggregate dryer exhausting through a baffle separator (CE2) and baghouse (CE1), exiting through stack S1, and using waste oil #4, waste oil #2, waste oil #3, No. 2 distillate oil, No. 4 distillate oil, or natural gas as fuel.

One (1) pugmill with weigh hoppers and screens capable of producing 325 tons per hour of asphalt, exhausting through a baghouse (CE1) and exiting through stack S1.

One (1) jet pulse baghouse (CE1) with an air flow rate of 45,000 actual cubic feet per minute.

One (1) Baffle separator (CE2).

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Sulfur Dioxide (SO_2) [326 IAC 7]

(a) Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 fuel oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

(b) Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the combustion of waste oil shall be limited to 1.6 pounds per million British thermal units heat input (the equivalent of 2.09 percent sulfur content). Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

D.1.2 Sulfur Dioxide (SO_2) Emission Limitation [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4**,** the total usage of waste oils by the dryer burner shall be limited to 308,411 gallons per month. Each gallon of No. 2 distillate oil used shall be considered equal to using 1.33 gallons of waste oil and each gallon of No. 4 distillate oil used shall be considered equal to using 1.33 gallons of waste oil. The sulfur content of the waste oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This fuel usage limitation was taken voluntarily by the company and is equivalent to sulfur dioxide emissions of 8.25 tons per month from the entire source. Due to this limit, the PSD (326 IAC 2-2) and Part 70 (326 IAC 2-7) rules do not apply.

D.1.3 Particulate Matter (PM)

That pursuant to 326 IAC 6-3-2 , particulate matter emissions from the aggregate dryer/mixer shall not exceed 46.8 pounds per hour equivalent to 0.161 grains per dry standard cubic foot, and the particulate matter emissions from the entire asphalt plant shall not exceed 56.8 pounds per hour. Therefore, PSD requirements (326 IAC 2-2) do not apply.

D.1.4 Opacity Limitations

Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings. Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (60 readings) in a six (6) hour period.

D.1.5 Particulate Matter Less Than 10 Microns (PM_{10})

Pursuant to 326 IAC 2-8-4, PM_{10} emissions from the baghouse stack (S1) shall not exceed 8.42 pounds per hour. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Testing Requirements [326 IAC 2-8-4(3)]

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]
During the period between 60 days and 180 days after issuance of this permit, the Permittee shall perform PM and PM_{10} testing utilizing methods approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}.

A test protocol shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least thirty-five (35) days before the intended test date. The Permittee shall develop and submit for approval with the protocol, standard operating procedures to be followed during sampling, handling, analysis, quality control, quality assurance, and data reporting.

D.1.7 Particulate Matter
In order to comply with Conditions D.1.3 and D.1.4, the baghouse for the aggregate dryer/mixer shall be in operation at all times when the aggregate dryer/mixer is in operation.

D.1.8 Sulfur Dioxide Emissions and Sulfur Content
Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on waste oil by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer/mixer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

(c) In order to demonstrate compliance with Condition D.1.2, the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate oil, No. 4 distillate oil or waste oil, based on a monthly weighted average using the methods described in (a) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Assurance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.9 Hourly Monitoring of Baghouse Operational Parameters

That the baghouse shall be operated at all times when the aggregate dryer is in operation. The Permittee shall hourly monitor the following parameters:

(a) Pressure drop (inlet/outlet differential static pressure) between the baghouse

The baghouse pressure drop shall be maintained within the following range of 2.0 to 5.0 inches of water.

If the unit is observed to be operating with a differential static pressure above the high end range or below the low end range for more than 2 hours of the production day, the trouble-shooting contingency plan and corrective action shall be taken within 8 hours of discovery in accordance with Rogers Group, Incorporated Corrective Action Contingency Plan. The company shall also document the cause of the out of range reading. Failure or partial failure of control devices shall be reported to IDEM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM.

(b) Inlet temperature to the baghouse

The inlet temperature to the baghouse shall be maintained below 350 degrees Fahrenheit to prevent overheating of the bags.

In the event that the temperature is above 350 degrees Fahrenheit, corrective action shall be taken within 8 hours. The operational parameters shall be monitored for indications of bag failure. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded.

In the event that bag failure has occurred due to rupture, melting., etc., corrective action shall be taken. Dependent upon the severity of the excursion, corrective action shall not exceed 8 hours from the time of discovery. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

D.1.10 Daily and Weekly Visible Emissions Observations

(a) That the Permittee shall perform daily (once per shift while operating) visible emissions observations to determine compliance with operation condition D.1.4. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(b) That the Permittee shall perform weekly visible emissions observations on the external bag-house unit, cyclone, scavenger system ductwork and associated component (e.g., hoppers,

etc.) for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limit required by operation condition D.1.4 or any visible emissions are detected on the external baghouse components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

D.1.11 Preventive Maintenance [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for these facilities.

D.1.12 Periodic Emissions Testing
That the Permittee shall perform particulate emissions testing on the baghouse stack (S1) every 5 years in accordance with IDEM requirements.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.13 Record Keeping Requirements
The Permittee shall maintain monthly records at the source of the following values:

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) The name of the fuel supplier; and

(5) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.1.2, the Permittee shall maintain records of the actual usage of each fuel used since the last compliance determination period and equivalent sulfur dioxide emissions.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the aggregate dryer/mixer stack exhaust weekly and daily (once per shift while operating).

(d) To document compliance with Condition D.1.9, the Permittee shall maintain records of the pressure drop and inlet temperature of the baghouse controlling the aggregate drying operation hourly during normal operation when venting to the atmosphere.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Used Oil Requirements

The waste oil burned in the aggregate dryer/mixer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

(a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),

(b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and

(c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source. Mixtures of used oil and hazardous waste that is listed in 40 CFR 261 Subpart D and used oil containing more than one thousand (1,000) parts per million total halogens are subject to regulation as hazardous waste under 329 IAC 3.1 rather than as used oil under this rule.

D.1.15 Quarterly Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Rogers Group, Incorporated - Lawrence County Asphalt

Source Address: 2 ½ Miles West of SR 37 at CR 750 N, Springville, Indiana 47462

FESOP No.: F 093-7577-03287

Facility: One (1) 91 million British thermal units per hour dryer burner firing #4, #2 and #3 waste oils, No. 2 distillate oil, No. 4 distillate oil, or natural gas

Parameters: Fuel usage

Limits: 308,411 gallons per month of waste oil, with each gallon of No. 2 distillate oil used considered equal to using 1.33 gallon of waste oil and each gallon of No. 4 distillate oil used considered equal to using 1.33 gallons of waste oil.

Equivalent to SO_2 emissions of 8.25 tons per month

Year: _____

Month	Waste Oil Throughput plus equivalent of No. 2 and No. 4 distillate oils to waste oil (Gallons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Attach a signed certification to complete this report.

January 3, 2002

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Name:	**Rogers Group, Inc. - Lawrence County Asphalt**
Source Location:	**2 ½ Miles West of SR 37 at CR 750 N, Springville, Indiana**
County:	**Lawrence**
SIC Code:	**2951**
Operation Permit No.:	**F 093-7577-03287**
Significant Permit Revision No.:	**SPR 093-15141-03287**
Permit Reviewer:	**CarrieAnn Paukowits**

On November 28, 2001, the Office of Air Quality (OAQ) had a notice published in the Times-Mail, Bedford, Indiana, stating that Rogers Group, Inc. - Lawrence County Asphalt had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) to use No. 2 distillate oil, No. 4 distillate oil and natural gas, in addition to waste oil, at the one (1) aggregate dryer at the stationary batch mix asphalt plant. The notice also stated that OAQ proposed to issue a Significant Permit Revision to a FESOP for this operation and provided information on how the public could review the proposed Significant Permit Revision to a FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Significant Permit Revision to a FESOP should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

Change 1:

Condition D.1.1 was revised by removing language stating that the condition was not federally enforceable. Federal law states that failure to comply with any permit condition issued under a program that has been approved into a State Implementation Plan (SIP) is to be treated as a violation of the SIP (40 CFR 52.23). This has the effect of making all FESOP conditions federally enforceable. Indiana's FESOP program was approved as a part of Indiana's SIP at 40 CFR 52.788. Neither the program nor the underlying rule, 326 IAC 2-8 contains provisions for designating certain conditions as not federally enforceable. Changes are as follows:

D.1.1 Sulfur Dioxide (SO_2) [326 IAC 7]

(a) Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 fuel oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. ~~326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.~~

(b) Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the combustion of waste oil shall be limited to 1.6 pounds per million British thermal units heat input (the equivalent of 2.09 percent sulfur content). Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. ~~326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.~~

January 3, 2002

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**Rogers Group, Inc. - Lawrence County Asphalt**
Source Location:	**2.5 miles west of SR37 at CR 750 North, Springville, Indiana 47462**
County:	**Lawrence**
SIC Code:	**2951**
Operation Permit No.:	**F 093-7577-03287**
Operation Permit Issuance Date:	**June 20, 1997**
Significant Permit Revision No.:	**SPR 093-15141-03287**
Permit Reviewer:	**CarrieAnn Paukowits**

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from Rogers Group, Inc. - Lawrence County Asphalt relating to the construction and operation of the following emission units and pollution control devices:

The proposed revision is for the use of No. 2 distillate oil, No. 4 distillate oil and natural gas, in addition to waste oil, at the one (1) aggregate dryer. This source was previously permitted to operate on waste oil #4, waste oil #2 and waste oil #3, only. Item (b) of the equipment list will be revised to appear as follows:

(b) One (1) 91 million British thermal units per hour aggregate dryer exhausting through a baffle separator (CE2) and baghouse (CE1), exiting through stack S1, and using waste oil #4, waste oil #2, waste oil #3, No. 2 distillate oil, No. 4 distillate oil, or natural gas as fuel.

History

On November 5, 2001, Rogers Group, Inc. - Lawrence County Asphalt submitted an application to the OAQ requesting the use of No. 2 distillate oil, No. 4 distillate oil and natural gas, in addition to waste oil, at the one (1) aggregate dryer. Rogers Group, Inc. - Lawrence County Asphalt was issued a Federally Enforceable State Operating Permit (FESOP) (F 093-7577-03287) on June 20, 1997.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S1	Existing stack for the aggregate dryer	24.0	4.0	45,000	225

Recommendation

The staff recommends to the Commissioner that the FESOP Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 5, 2001.

Emission Calculations

See pages 1 through 5 of 5 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	**Potential To Emit** (tons/year)
PM	5.78
PM_{10}	9.53
SO_2	205
VOC	2.19
CO	33.5
NO_X	57.3

HAPs	**Potential To Emit** (tons/year)
Individual	less than 10
TOTAL	less than 25

Justification for Revision

The potentials to emit sulfur dioxide (SO_2) and nitrogen oxides (NO_X) are greater than or equal to twenty-five (25) tons per year. Therefore, the FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1 (f)(1)(E).

County Attainment Status

The source is located in Lawrence County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Lawrence County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Lawrence County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	105
PM_{10}	22.8
SO_2	99.0
VOC	0.185
CO	3.89
NO_X	29.6

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the limited potential to emit table in the Technical Support Document (TSD) for FESOP F 093-7577-03287, issued on June 20, 1997.

Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this FESOP revision.

	Potential to Emit (tons/year)						
Process/facility	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Proposed Revision	0.0001	0.002	less than 100	2.19	33.5	57.8	--
Dryer emissions from waste oil	0.002	0.013	99.0	2.85	5.98	45.6	--
Worst case dryer burner emissions	0.002	0.013	less than 100	2.85	33.5	57.8	--
Existing source excluding dryer burner emissions	249	48.9	0.00	0.00	0.00	0.00	10.8
Total (Worst case of dryer emissions plus existing source excluding dryer emissions)	less than 250	48.9	less than 100	2.85	33.5	57.8	10.8
FESOP Threshold Level	--	100	100	100	100	100	10 individual 25 total
PSD Threshold Level	250	250	250	250	250	250	-

(a) This revision to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

(b) This revision to an existing minor stationary source will not make the source a major source pursuant to 326 IAC 2-2 and 40 CFR 52.21, PSD, because the potential to emit each criteria pollutant will remain less than 250 tons per year.

(c) This revision to the existing FESOP will not change the status of the stationary source because the emissions from the entire source will still be limited to less than the Part 70 major source thresholds.

Federal Rule Applicability

(a) A modification is defined by 40 CFR 60.2 as, “any physical change in, or change in the method of operation of an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.” The potential to emit PM, which is the pollutant regulated by 40 CFR Part 60.90, Subpart I, is higher when using waste oil than when using No. 2 distillate oil, No.

4 distillate oil or natural gas. Therefore, the potential to emit PM is not increasing as a result of this change and this is not a modification pursuant to 40 CFR 60.2. Thus, the source is still not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I).

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed revision.

State Rule Applicability - Individual Facilities

326 IAC 2-8-4 (FESOP) and 326 IAC 2-2 (PSD)

(a) The potential to emit SO_2 from this modification is greater than 100 tons per year. Pursuant to F 093-7577-03287, issued on June 20, 1997, the total usage of waste oils by the dryer burner shall be limited to 308,411 gallons per month, which limits the potential to emit sulfur dioxide to 8.25 tons per month from the entire source. In order to continue to comply with this SO_2 emission limit, each gallon of No. 2 distillate oil used shall be considered equal to using 1.33 gallons of waste oil and each gallon of No. 4 distillate oil used shall be considered equal to using 1.33 gallons of waste oil. The sulfur content of the waste oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. The potential to emit SO_2 when using natural gas is 0.239 tons per year. Therefore, this will limit SO_2 emissions from the use of distillate oils or waste oil to 99.0 tons per year and the potential to emit SO_2 from the entire source to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, and 326 IAC 2-2, PSD, still do not apply.

(b) For all other criteria pollutants, the source will continue to comply with the limits in F 093-7577-03287, issued on June 20, 1997. Therefore, the requirements of 326 IAC 2-7, Part 70, and 326 IAC 2-2, PSD, still do not apply.

326 IAC 7 (Sulfur Dioxide Rules)

Since the potential to emit SO_2 from the dryer burner is twenty-five (25) tons per year or more, the requirements of 326 IAC 7-1.1 are applicable.

(a) When operating on No. 2 or No. 4 distillate oil, the sulfur dioxide emissions shall be limited to five-tenths (0.5) pound per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the No. 2 distillate oil and the No. 4 distillate oil to no more than one half of one percent (0.5%).

(b) When operating on waste oil, the sulfur dioxide emissions shall be limited to one and six tenths (1.6) pounds per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the waste oil to no more than two percent (2%).

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance require-

ments are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no additional compliance monitoring requirements applicable to this source as a result of this revision.

Testing Requirements

Pursuant to F 093-7577-03287, issued on June 20, 1997, the Permittee is required to perform PM and PM_{10} testing of the aggregate dryer at least every five (5) years. There are no additional testing requirements as a result of this revision.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

A.2 Emission Units and Pollution Control Summary
This stationary source consists of the following emission units and pollution control devices:

(a) One (1) pugmill with weigh hoppers and screens capable of producing 325 tons per hour of asphalt, exhausting through a baghouse (CE1) and exiting through stack S1.

(b) One (1) 91 million British thermal units per hour ~~waste oil #4 fired~~ aggregate dryer exhausting through a baffle separator (CE2) and baghouse (CE1), exiting through stack S1, and using **waste oil #4,** waste oil #2, ~~and~~ waste oil #3**, No. 2 distillate oil, No. 4 distillate oil, or natural gas** as ~~alternate~~ fuel~~s~~.

(c) One (1) jet pulse baghouse (CE1) with an air flow rate of 45,000 actual cubic feet per minute.

(d) One (1) baffle separator (CE2).

(e) Three (3) asphalt storage tanks (T1, T2 and T3) with capacities of 20,000 gallons each.

(f) One (1) waste oil storage tank (T4) with a capacity of 20,000 gallons.

SECTION D.1 FACILITY OPERATION CONDITIONS

One (1) 91 million British thermal units per hour ~~waste oil #4 fired~~ aggregate dryer exhausting through a baffle separator (CE2) and baghouse (CE1), exiting through stack S1, and using **waste oil #4,** waste oil #2, ~~and~~ waste oil #3**, No. 2 distillate oil, No. 4 distillate oil, or natural gas** as ~~alternate~~ fuel~~s~~.

One (1) pugmill with weigh hoppers and screens capable of producing 325 tons per hour of asphalt, exhausting through a baghouse (CE1) and exiting through stack S1.

One (1) jet pulse baghouse (CE1) with an air flow rate of 45,000 actual cubic feet per minute.

One (1) Baffle separator (CE2).

D.1.1 Sulfur Dioxide (SO_2)**[326 IAC 7]**

(a) **Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.**

(b) Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the combustion of waste oil shall be limited to 1.6 pounds per million British thermal units heat input (the equivalent of 2.09 percent sulfur content). **Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.**

D.1.2 Sulfur Dioxide (SO_2)**Emission Limitation [326 IAC 2-8-4]**

Pursuant to 326 IAC 2-8-4**,** the total usage of waste oils by the dryer burner shall be limited to 308,411 gallons per month. **Each gallon of No. 2 distillate oil used shall be considered equal to using 1.33 gallons of waste oil and each gallon of No. 4 distillate oil used shall be considered equal to using 1.33 gallons of waste oil. The sulfur content of the waste oil shall not exceed one half of a percent (0.5%) by weight and the sulfur content of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average.** This fuel usage limitation was taken voluntarily by the company and is equivalent to sulfur dioxide emissions of 8.25 tons per month from the entire source. Due to this limit, the PSD (326 IAC 2-2) and Part 70 (326 IAC 2-7) rules do not apply.

D.1.6 ~~Particulate Matter~~ **Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

During the period between 60 days and 180 days after issuance of this permit, the Permittee shall perform PM and PM_{10} testing utilizing methods approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}.

A test protocol shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air ~~Management~~ **Quality**
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least thirty-five (35) days before the intended test date. The Permittee shall develop and submit for approval with the protocol, standard operating procedures to be followed during sampling, handling, analysis, quality control, quality assurance, and data reporting.

D.1.7 Particulate Matter

In order to comply with Conditions D.1.3 and D.1.4, the baghouse for the aggregate dryer/ mixer shall be in operation at all times when the aggregate dryer/mixer is in operation.

D.1.~~7~~**8** ~~Waste Oil Sampling and Analysis~~ **Sulfur Dioxide Emissions and Sulfur Content**

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on waste oil by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) ~~Oil samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. The Permittee shall analyze the oil sample to determine the sulfur content of the oil in accordance with 326 IAC 3-3-4. If a partially empty fuel tank is refilled, a new sample and analysis is required upon filling. Vendor analysis of each load delivered is acceptable, in lieu of the above, if accompanied by a certification.~~ **Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.**

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer/mixer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

(c) In order to demonstrate compliance with Condition D.1.2, the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate oil, No. 4 distillate oil or waste oil, based on a monthly weighted average using the methods described in (a) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.1~~2~~**3** ~~Operational Parameters~~ **Record Keeping Requirements**

The Permittee shall maintain monthly records at the source of the following values:

(a) **To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below.**

(1) Calendar dates covered in the compliance determination period;

(2) ~~Amount of waste oil used (expressed in gallons)~~ **A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and**

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(3) The name of the fuel supplier; and

(4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

~~(b) The records for fuel oil shall contain a minimum of the following:~~

~~(1) Average sulfur content of the waste oil used;~~

~~(2) Average higher heating value of the waste oil used;~~

~~(3) Average sulfur dioxide emission rate (expressed in pounds per million British thermal units);~~

~~(4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and~~

~~(5) Regular fuel sampling and analysis performed as specified in 326 IAC 3-3-4, or fuel supplier certifications containing, as a minimum, the following:~~

~~(a) The name of the oil supplier, and~~

~~(b) A statement from the oil supplier that certifies the sulfur content of the fuel oil.~~

(b) To document compliance with Condition D.1.2, the Permittee shall maintain records of the actual usage of each fuel used since the last compliance determination period and equivalent sulfur dioxide emissions.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of visible emission notations of the aggregate dryer/mixer stack exhaust weekly and daily (once per shift while operating).

(d) To document compliance with Condition D.1.9, the Permittee shall maintain records of the pressure drop and inlet temperature of the baghouse controlling the aggregate drying operation hourly during normal operation when venting to the atmosphere.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.13~~4~~ ~~Waste~~ **Used** Oil **Requirements**

The waste oil burned in the aggregate dryer/mixer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil

Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

(a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),

(b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and

(c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source. Mixtures of used oil and hazardous waste that is listed in 40 CFR 261 Subpart D and used oil containing more than one thousand (1,000) parts per million total halogens are subject to regulation as hazardous waste under 329 IAC 3.1 rather than as used oil under this rule.

D.1.1~~4~~**5** Quarterly Reporting **Requirements**

~~Quarterly summary to document compliance with operation conditions number D.1.1 and D.1.2 shall be submitted, using the enclosed forms or their equivalent, within thirty (30) after the end of the quarter being reported. These reports shall include the number of gallons of waste oil used and the waste oil's average sulfur content for each month in a quarter. All records and reports shall use calendar month averages.~~ **A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

Conditions in Section D that are not changed in this revision have been re-numbered accordingly. The Quarterly Report Form has been revised as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR ~~MANAGEMENT~~ QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Rogers Group, Incorporated - Lawrence County Asphalt

Source Address: 2 ½ Miles West of SR 37 at CR 750 N, Springville, Indiana 47462

FESOP No.: F 093-7577-03287

Facility: One (1) 91 million British thermal units per hour dryer burner firing #4 ~~waste oil as a primary fuel and~~ #2 and #3 waste oils, ~~as alternate fuels.~~ **No. 2 distillate oil, No. 4 distillate oil, or natural gas**

Parameters: **Fuel usage** ~~Sulfur dioxide~~

Limits: ~~(a)~~ 308,411 gallons per month of waste **oil, with each gallon of No. 2 distillate oil used considered equal to using 1.33 gallon of waste oil and each gallon of No. 4 distillate oil used considered equal to using 1.33 gallons of waste oil.**

Equivalent to SO_2 emissions of 8.25 tons per month

Month	Waste Oil Throughput **plus equivalent of No. 2 and No. 4 distillate oils to waste oil** (Gallons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Attach a signed certification to complete this report.

On January 1, 2001, the name of the Office of Air Management (OAM) was changed to the Office of Air Quality (OAQ). All references to the Office of Air Management or OAM in the cover page of the permit have been changed to Office of Air Quality or OAQ. All references to Office of Air Management or OAM in the FESOP should be read as Office of Air Quality or OAQ. The reference to Office of Air Management (OAM) in Condition A.4, which is included in this revision's updated FESOP pages, has been changed as follows:

A.4 FESOP Applicability [326 IAC 2-8-2]
This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air ~~Management~~ **Quality** ~~(OAM)~~ **(OAQ)** for a Federally Enforceable State Operating Permit (FESOP).

Conclusion

The construction of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 093-15141-03287.

Appendix A: Emission Calculations

Company Name: Rogers Group, Inc. - Lawrence County Asphalt
Plant Location: 2.5 miles west of SR37 at CR 750 North, Springville, Indiana 47462
County: Lawrence
SPR: 093-15141
Plt. ID: 093-03287
Date: November 5, 2001
Permit Reviewer: CarrieAnn Paukowits

I. Potential Emissions

Dryer Burner (gas/<100MMBTU/uncontrolled) **Proposed Change**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant: **91.0** MMBtu/hr * 8760 hrs/yr / 1000 Btu/cf * 2000 lbs/ton * Ef (lbs/MMcf) = (tons/yr)

P M:	1.9	lbs/MMcf =	**0.757** tons/yr
P M-10:	7.6	lbs/MMcf =	**3.03** tons/yr
S O x:	0.6	lbs/MMcf =	**0.239** tons/yr
N O x:	100.0	lbs/MMcf =	**39.9** tons/yr
V O C:	5.5	lbs/MMcf =	**2.19** tons/yr
C O:	84.0	lbs/MMcf =	**33.5** tons/yr

(#2 & #1 oil) Dryer Burner **<100** **Proposed change**

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant: **91.0** MMBtu/hr * 8760 hrs/yr / **139000** Btu/gal * 2000 lbs/ton * Ef (lbs/1000 gal) = (tons/yr)

If Rating >100 mmBtu				
		P M:	2.0 lbs/1000 gal =	**5.73** tons/yr
		PM-10:	3.3 lbs/1000 gal =	**9.46** tons/yr
		S O x:	71.0 lbs/1000 gal =	**204** tons/yr
N O x:	**24.0**	N O x:	20.0 lbs/1000 gal =	**57.3** tons/yr
V O C:	**0.20**	V O C:	0.34 lbs/1000 gal =	**0.975** tons/yr
		C O:	5.0 lbs/1000 gal =	**14.3** tons/yr

(#4 oil/ <100MMBTU) Dryer Burner **Proposed change**

The following calculations determine the amount of emissions created by #4 distillate fuel oil @ **0.5** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant: **91.0** MMBtu/hr * 8760 hrs/yr / **138000** Btu/gal * 2000 lbs/ton * Ef (lbs/1000 gal) = (tons/yr)

P M:	2.0	lbs/1000 gal =	**5.78** tons/yr
PM-10:	3.3	lbs/1000 gal =	**9.53** tons/yr
S O x:	71.0	lbs/1000 gal =	**205** tons/yr
N O x:	20.0	lbs/1000 gal =	**57.8** tons/yr
V O C:	0.34	lbs/1000 gal =	**0.982** tons/yr
C O:	5.0	lbs/1000 gal =	**14.4** tons/yr

(waste oil/ vaporizing burner)

		Already permitted
The following calculations determine the amount of emissions created by waste	0.400	% Ash
fuel oil @ **0.500** % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11	0.002	% Lead

Pollutant: **91.0** MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
140000.0 Btu/gal * 2000 lbs/ton

P M:	1.1	lbs/1000 gal =	**3.19** tons/yr
P M-10:	1.1	lbs/1000 gal =	**3.19** tons/yr
S O x:	50.0	lbs/1000 gal =	**142** tons/yr
N O x:	11.0	lbs/1000 gal =	**31.3** tons/yr
VOC	1.0	lbs/1000 gal =	**2.85** tons/yr
C O:	1.7	lbs/1000 gal =	**4.84** tons/yr
Pb:	0.0	lbs/1000 gal =	**0.002** tons/yr

(waste oil/atomizing burner)

		Already permitted
The following calculations determine the amount of emissions created by waste	0.400	% Ash
fuel oil @ **0.50** % sulfur, based on 8760 hours of use andAP-42 Chapter 1.11	0.002	% Lead

Pollutant: **91.0** MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
140000 Btu/gal * 2000 lbs/ton

P M:	26.4	lbs/1000 gal =	**75.2** tons/yr
P M-10:	22.8	lbs/1000 gal =	**64.9** tons/yr
S O x:	53.5	lbs/1000 gal =	**152** tons/yr
N O x:	16.0	lbs/1000 gal =	**45.6** tons/yr
VOC	1.0	lbs/1000 gal =	**2.85** tons/yr
C O:	2.10	lbs/1000 gal =	**5.98** tons/yr
Pb:	0.10	lbs/1000 gal =	**0.285** tons/yr

* * aggregate drying: batch-mix plant * *

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32	lbs/ton x	**325.0**	tons/hr x	8760	hrs/yr =	**45552** tons/yr
			2000	lbs/ton			
P M-10:	4.5	lbs/ton x	325	tons/hr x	8760	hrs/yr =	**6406** tons/yr
			2000	lbs/ton			
Lead:	3.30000000E-06	lbs/ton x	325	tons/hr x	8760	hrs/yr =	**0.005** tons/yr
			2000	lbs/ton			
HAPs:	0.0076	lbs/ton x	325	tons/hr x	8760	hrs/yr =	**10.8** tons/yr
			2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil		waste oil	
P M:	**45553** tons/yr	P M:	**45558** tons/yr	P M:	**45558** tons/yr	P M:	**45627** tons/yr
P M-10:	**6409** tons/yr	P M-10:	**6415** tons/yr	P M-10:	**6415** tons/yr	P M-10:	**6471** tons/yr
S O x:	**0.239** tons/yr	S O x:	**204** tons/yr	S O x:	**205** tons/yr	S O x:	**152** tons/yr
N O x:	**39.9** tons/yr	N O x:	**57.3** tons/yr	N O x:	**57.8** tons/yr	N O x:	**45.6** tons/yr
V O C:	**2.19** tons/yr	V O C:	**0.975** tons/yr	V O C:	**0.982** tons/yr	V O C:	**2.85** tons/yr
C O:	**33.5** tons/yr	C O:	**14.3** tons/yr	C O:	**14.4** tons/yr	C O:	**5.98** tons/yr
Lead:	**0.005** tons/yr	Lead:	**0.005** tons/yr	Lead:	**0.005** tons/yr	Lead:	**0.005** tons/yr
HAPs:	**10.8** tons/yr	HAPs:	**10.8** tons/yr	HAPs:	**10.8** tons/yr	HAPs:	**10.8** tons/yr

B. Source emissions after controls

dryer combustion: gas

P M:	0.76 tons/yr x	**0.00002**	emitted after controls =	**0.00002** tons/yr
P M-10:	3.03 tons/yr x	**0.00020**	emitted after controls =	**0.001** tons/yr

dryer combustion: #2 oil

P M:	5.73 tons/yr x	**0.00002**	emitted after controls =	**0.0001** tons/yr
P M-10:	9.46 tons/yr x	**0.00020**	emitted after controls =	**0.002** tons/yr

dryer combustion: #4 oil

P M:	5.78 tons/yr x	**0.00002**	emitted after controls =	**0.0001** tons/yr
P M-10:	9.53 tons/yr x	**0.00020**	emitted after controls =	**0.002** tons/yr

dryer combustion: waste oil

P M:	75.16 tons/yr x	**0.00002**	emitted after controls =	**0.002** tons/yr
P M-10:	64.91 tons/yr x	**0.00020**	emitted after controls =	**0.013** tons/yr

aggregate drying:

P M:	45552.00 tons/yr x	**0.00020**	emitted after controls =	**9.11** tons/yr
P M-10:	6405.75 tons/yr x	**0.00020**	emitted after controls =	**1.28** tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	**9.11**	**9.11**	**9.11**	**9.11**	tons/yr
P M-10:	**1.28**	**1.28**	**1.28**	**1.29**	tons/yr

II. Allowable Emissions

A. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit:	0.5 lbs/MMBtu			
	0.5 lbs/MMBtu x	**139000**	Btu/gal=	**69.5** lbs/1000gal
	69.5 lbs/1000gal /	**142**	lb/1000 gal =	**0.489**

Sulfur content must be less than or equal to **0.5** % to comply with 326 IAC 7
and to limit SO2 emissions to 99 tons per year or less.

B. The following calculations determine the maximum sulfur content of residual waste fuel oil allowable by 326-IAC 7:

limit: 1.6 lbs/MMBtu

1.6 lbs/MMBtu x **140000** Btu/gal= 224 lbs/1000gal

224 lbs/1000gal / **107** lbs/1000 gal = **2.09**

Sulfur content must be less than or equal to **2.1** % to comply with 326 IAC 7 and to limit SO2 emissions to 99 tons per year or less.

C. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

limit: 0.5 lbs/MMBtu

0.5 lbs/MMBtu x **138000** Btu/gal= 69 lbs/1000gal

69 lbs/1000gal / **142** lbs/1000 gal = **0.486**

Sulfur content must be less than or equal to **0.5** % to comply with 326 IAC 7 and to limit SO2 emissions to 99 tons per year or less.

III. Limited Potential Emissions

FUEL USAGE LIMITATION: BASED ON NOx

The potential to emit NOx from the entire source is less than 100 tons per year. Therefore, no FESOP limit is required.

FUEL USAGE LIMITATION: BASED ON SO2

FUEL USAGE LIMITATION FOR BURNER (Gas)

0.239 tons SO2 / year * 2000 lbs / ton = 478.30 lbs SO2 / year

478.30 lbs SO2 / year / **0.6** lbs SO2 / MMcf = 797.16 MMcf / year

797.16 MMcf / year * **99.0** tons/yr / 0.24 tons/yr = **0.0** MMcf / year No FESOP Limit

FUEL USAGE LIMITATION FOR BURNER (#2 Oil)

203.6 tons SO2 / year * 2000 lbs / ton = 407182.45 lbs SO2 / year

407182.45 lbs SO2 / year / **71.0** lbs / 1000 gal = 5734964.0288 gal / year

5734964.03 gal / year * **99.0** tons/yr / 203.59 tons/yr = **2788732** gal / year FESOP Limit

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

205.1	tons SO2 / year	*	2000	lbs / ton	=	410133.04348	lbs SO2 / year	
410133.04	lbs SO2 / year	/	**71.0**	lbs / 1000 gal	=	5776521.7391	gal / year	
5776521.74	gal / year	*	**99.0** / 205.07	tons/yr / tons/yr	=	**2788732**	gal / year	FESOP Limit

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

152.3	tons SO2 / year	*	2000	lbs / ton	=	304629.00	lbs SO2 / year	
304629.00	lbs SO2 / year	/	**53.5**	lbs / 1000 gal	=	5694000.00	gal / year	
5694000.00	gal / year	*	**99.0** / 152.31	tons/yr / tons/yr	=	**3700935**	gal / year	FESOP Limit